Influenza or Seasonal Influenza

Avian Influenza or "Bird Flu"

Pandemic Influenza

Influenza, Avian Influenza and Pandemic Influenza are terms that have recently exploded throughout the media channels. This paper will attempt to clarify these three very different terms.

Influenza is a viral infection that occurs almost every winter (seasonal). It causes cough, congestion and fever. It can result in significant problems such as hospitalization due to pneumonia in young and older people and those with pre-existing medical conditions such as diabetes and asthma. Influenza is notoriously contagious. It will spread from those who are sick to those who are well very rapidly and efficiently through coughing and sneezing. The best way to prevent influenza is through immunization. Hand washing, staying home from work and wearing face masks while sick can also help prevent disease.

Influenza can infect other animals such as birds and pigs. Usually, animal flu will only stay with one species. The current H5N1 avian influenza in Southwest Asia is mostly a disease of birds but it has caused 68 deaths of the 138 human cases since 1997. These cases have occurred in Thailand, Hong Kong, Cambodia, Vietnam, and Indonesia. The high percentage of deaths (49%) is of concern. However, this death rate is most likely overstated since mild cases may not be counted especially in countries that have limited health care. All human cases are believed to occur among people living with domesticated birds like chickens. There has been no evidence of person-to-person transmission with this virus, only from bird to person.

Every year, a distinct strain of human influenza virus starts out in Asia and spreads across the world. We call this "Seasonal Influenza" because it usually starts in the U.S. around December and peaks in February. To combat this seasonal spread, people of all ages are encouraged to get the Influenza Vaccine. The immunization (injection or nasal spray) stimulates the body to produce antibodies that recognize certain proteins on the coat of the Influenza virus and destroy it. Unfortunately, the virus is prone to changing or mutating. To combat these changes, a new vaccine is developed every year. In reality, prior Influenza strains are similar enough to current strains to give people who received the vaccine the prior year some protection even though it may be incomplete.

Periodically over history, an Influenza strain may develop that is so unique that the body does not recognize the virus and has no protection. This is what starts Pandemic

Influenza, which is a flu season that results in exceptionally large number of cases across the world. The change is so rapid and unpredictable that it is nearly impossible to produce a vaccine before a pandemic influenza outbreak. Once it hits, current Influenza vaccine technology requires 6 months to produce a vaccine.

There have been pandemic Influenza seasons in 1918-1919, 1957-1958, and 1968-1969. The 1917-1918 Influenza Virus was known as the "Spanish Flu". The novel strains that lead to pandemics are often created when animal and human Influenza viruses combine. Since the world has not experienced a pandemic since 1969 and there is an active bird flu strain (H5N1) that could combine with human Influenza strain, the global community is concerned that conditions are right for the next pandemic. In spite of this concern, there is no evidence that a pandemic will result from the H5N1 strain or that it will happen this year. All scientists agree that a pandemic will occur sometime in the future. It may be this year or 100 years from now.

To combat this uncertainty, the President has issued the National Strategy for Pandemic Influenza with a request for 7.1 billion dollars to support this initiative. The funding will be used to improve surveillance across the world. Early detection can nip a rising epidemic in the bud before it becomes a pandemic. The money will also be used to rapidly produce vaccines and stockpile antiviral medications. Most importantly, it will fund communities to better prepare local plans and initiatives.

Ireland Army Community Hospital and Fort Knox have written plans for pandemic influenza and other biological agents. The new presidential strategy will be an incentive to better refine and improve our current plans.

Recently, personal stockpiling of anti-virals such as Tamiflu has been in the news. This is not advocated for three reasons. The first is that there is not enough medication for everybody. The current strategy is to provide anti-virals in a "ring" around a cluster of pandemic flu cases to stop transmission. This will be in conjunction with quarantine. There has to be enough medication to form the ring for this strategy to work. The second reason is that people may take the medication at the wrong time resulting in no benefit. Medication issued by public health authorities will come with explicit instructions on when and how to use. Finally, there is no current pandemic. Tamiflu purchased now may expire before it is needed since no one can exactly predict the next pandemic.

In summary, pandemic influenza is a real possibility but no one can predict when it will occur. With government focus and funding, it may be possible to intervene before a pandemic occurs. Like natural disasters and terrorism, Pandemic Influenza is something to consider and prepare for. The best defense is preparation. There is 100% certainty that Fort Knox will experience regular Influenza this winter. The best defense for this is immunization. Active duty immunizations are ongoing through unit vaccine programs. If you have missed your unit's scheduled date, you may report to the RMP Center, Monday-Friday from 1300-1500. High-risk individuals can report to the Ireland Army Community Hospital Immunization Clinic. High risk is defined by those older than 50 or younger than two, those who are pregnant, and those with chronic medical conditions such as

Asthma. The hospital is conducting a Community Flu Vaccine Day on December 9 from 0800-1530 at Sadowski Fitness Center on Wilson Road. This is a make-up date for Active Duty, Reserves, Retirees, Family Members, and DoD Civilians. Other dates may be announced for all others who want the flu vaccine if the supply is still available. Continue to check this website (http://www.iach.knox.amedd.army.mil/flu_web) for updates. More information on pandemic flu and avian influenza can be obtained on the same web site.